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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,645	03/24/2004	William Michael McCardle	200600376-1	6121

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FORT COLLINS, CO 80527-2400

EXAMINER
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TRAN, NGHI V

ART UNIT	PAPER NUMBER
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2151

MAIL DATE	DELIVERY MODE
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08/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/808,645

Applicant(s)

MCCARDLE ET AL.

Examiner

Nghi V. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14, 16-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14, 16-24, and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. This office action is in response to the amendment filed on May 17, 2007. Claims 1, 11, and 21 have been amended. Claims 5, 15, 25, and 27 have been canceled. Therefore, claims 1-4, 6-14, 16-24, and 26 are presented for further examination.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 21-26 are rejected under 35 U.S.C. 101 because of the following reasons:

4. Claim 21 is directly not limited to "functional descriptive material" because claim 21 is directly and/or indirectly to a computer program and/or a computer software application such as a graphical user interface. According to "Patent Eligibility Guidelines 35 USC 101", pages 50-51, and according to MPEP 2106 page 2100-2012, a computer program is directed to non-statutory subject matter. For example, the Interim Guidelines recites "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory..." On the other hand, the claim 21 recites "A computer-implemented graphical user interface operable to: ..." (emphasis added) are directed to non-statutory subject matter because claim 21 is just limited to computer program and

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computer application per se, instead being defined as including structurally and functionally interrelated to the storage medium. Further, claim 21 lacks structurally and functionally to recorded on some computer-readable storage medium. Therefore, claim 21 is directed to non-statutory subject matter because they are not directly to "functional descriptive material".

5. Claims 22-26 are also rejected under 35 U.S.C. 101 because they are directly on independent claim 21.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6-14, 16-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmer et al., United States Patent Number 7,051,215 (hereinafter Zimmer), in view of Rothman et al., United States Patent Application Publication Number 2004/0109406 (hereinafter Rothman).

8. With respect to claims 1, 11, and 21, Zimmer teaches a method of compute clustering [see abstract and figs.1-3], comprising:

- identifying a defined cluster [col.1, ln.45 through col.2, ln.30], the cluster including a plurality of receptors [i.e. an interface plane **104** such as backplane and/or mid-plane, col.3, lns.62-66] in a chassis [i.e. rack mounted chassis **100**], each receptor configured to couple the chassis to a network device [i.e. blades **102** and/or **200**, figs.1-2], at least one of the plurality of receptors in the cluster being unoccupied by a network device [i.e. all slots in a chassis do not need to be occupied, col.3, lns.58-62];
- storing the physical locations [i.e. blade ID such as blade 1-N and/or MAC address, col.10, lns.60-67] associated with each of the plurality of receptors [fig.6 and col.10, lns.60-67];
- wherein storing the physical locations includes storing the physical location associated with the at least one receptor in the cluster that is unoccupied by a network device [col.12, lns.31-53 and col.3, lns.58-62].

However, Zimmer does not explicitly show receiving a designation that a selected one of the plurality of receptors is a master receptor; and receiving an image designated as a master image for the selected receptor.

In a clustered servers method, Rothman suggests or discloses receiving a designation that a selected one of the plurality of receptors is a master receptor [i.e. proxy blade]; and receiving an image designated as a master image for the selected receptor [figs.2-3 and paragraphs 0014-0029].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by receiving an

image designated as a master image for selected receptor because this feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

9. With respect to claims 2, 12, and 22, Zimmer does not explicitly show receiving an image designated as a default image for the plurality of receptors in the cluster.

In a clustered servers method, Rothman suggests or discloses receiving an image designated as a default image for the plurality of receptors in the cluster [fig.2 and paragraphs 0014-0019].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by receiving an image designated as a default image for the plurality of receptors in the cluster because this feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

10. With respect to claims 3, 13, and 23, Zimmer further teaches at least one of the plurality of receptors in the cluster being unoccupied by a network device [i.e. all slots in a chassis do not need to be occupied, col.3, lns.58-62];

However, Zimmer does not explicitly show associating the default image with the at least one receptor in the cluster .

In a clustered servers method, Rothman suggests or discloses associating the default image with the at least one receptor in the cluster [fig.2 and paragraphs 0014-0019].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by associating the default image with the at least one receptor in the cluster because this feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

11. With respect to claims 4, 14, and 24, Zimmer does not explicitly show wherein the image comprises a physical location identifying software that operates to configure the plurality of receptors in the cluster.

In a clustered servers method, Rothman suggests or discloses wherein the image comprises a physical location identifying software that operates to configure the plurality of receptors in the cluster [fig.2 and paragraphs 0022-0027].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by operating to configure the plurality of receptors in the cluster via a physical location identifying software because this feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

12. With respect to claims 6, 16, and 26, Zimmer does not explicitly show wherein the master image comprises a physical location identifying software that operates to configure the selected receptor.

In a clustered servers method, Rothman suggests or discloses wherein the master image comprises a physical location identifying software that operates to configure the selected receptor [fig.2 and paragraphs 0022-0027].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by operating to configure the selected receptor via a physical location identifying software because this



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feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

13. With respect to claims 7-10 and 17-20, Zimmer further teaches detecting the presence of a network device coupled to the at least one receptor in the cluster that was previously unoccupied; and in response to detecting the presence [col.3, ln.54 through col.4, ln.42].

However, Zimmer does not explicitly show automatically installing an image on the network device; providing message the user with the option of installing a default image on the network device; and overriding the image by installing the default image on the network device.

In a clustered servers method, Rothman suggests or discloses automatically installing an image on the network device [paragraphs 0014-0019 and see claim 24]; providing message the user with the option of installing a default image on the network device [fig.2 and paragraphs 0014-0019]; and overriding the image by installing the default image on the network device [= update, see paragraphs 0020-0027].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by operating to configure the selected receptor via a physical location identifying software because this

feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

### ***Response to Arguments***

14. Applicant's arguments filed May 17, 2005 have been fully considered but they are not persuasive because of the following: Zimmer teaches a method of compute clustering [see abstract and figs.1-3], comprising: identifying a defined cluster [col.1, ln.45 through col.2, ln.30], the cluster including a plurality of receptors [i.e. an interface plane **104** such as backplane and/or mid-plane, col.3, lns.62-66] in a chassis [i.e. rack mounted chassis **100**], each receptor configured to couple the chassis to a network device [i.e. blades **102** and/or **200**, figs.1-2], at least one of the plurality of receptors in the cluster being unoccupied by a network device [i.e. all slots in a chassis do not need to be occupied, col.3, lns.58-62]; storing the physical locations [i.e. blade ID such as blade 1-N and/or MAC address, col.10, lns.60-67] associated with each of the plurality of receptors [fig.6 and col.10, lns.60-67]; wherein storing the physical locations includes storing the physical location associated with the at least one receptor in the cluster that is unoccupied by a network device [col.12, lns.31-53 and col.3, lns.58-62]. However, Zimmer does not explicitly show receiving a designation that a selected one of the plurality of receptors is a master receptor; and receiving an image designated as a

master image for the selected receptor. In a clustered servers method, Rothman suggests or discloses receiving a designation that a selected one of the plurality of receptors is a master receptor [i.e. proxy blade]; and receiving an image designated as a master image for the selected receptor [figs.2-3 and paragraphs 0014-0029].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zimmer in view of Rothman by receiving an image designated as a master image for selected receptor because this feature may be responsible for providing configuration information or target operating system information to facilitate booting [Rothman, paragraph 0014]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to enable cluster of server to handle defects that occur in one or more of the servers in the cluster [Rothman, paragraph 0006].

15. In response to applicant's arguments that Zimmer does not teach or disclose receiving a designation that a selected one of the plurality of receptors is a master receptor; and receiving an image designated as a master image for the selected receptor, the examiner admitted that Zimmer does not teach or disclose receiving a designation that a selected one of the plurality of receptors is a master receptor; and receiving an image designated as a master image for the selected receptor. However, Rothman does suggest receiving a designation that a selected one of the plurality of receptors is a master receptor [i.e. proxy blade]; and receiving an image designated as a master image for the selected receptor [figs.2-3 and paragraphs 0014-0029].

16. In response to applicant's argument that Rothman does not suggest receiving a default image for the plurality of receptors in an identified and defined cluster, the examiner respectfully disagrees because the applicant's argument does not commensurate with the scope of the claim. Claims 2, 12, and 22 directly or indirectly recite receiving an image designated as a default image for the plurality of receptors in the cluster. However, claims 2, 12, and 22 do not recite the limitation of "receiving a default image for the plurality of receptors in an identified and defined cluster" (emphasis added).

17. In response to applicant's arguments that Rothman does not suggest associating the default image with the at least one receptor in the cluster that is unoccupied by the network device, the examiner respectfully disagrees because Zimmer teaches at least one of the plurality of receptors in the cluster being unoccupied by a network device [i.e. all slots in a chassis do not need to be occupied, col.3, lns.58-62] and Rothman suggests or discloses associating the default image with the at least one receptor in the cluster [fig.2 and paragraphs 0014-0019]. Thus, Zimmer in view of Rothman suggests associating the default image with the at least one receptor in the cluster that is unoccupied by the network device.

18. In response to applicant's arguments that Rothman teaches a way from by specifically failing to designate a master receptor operating as a manager for a cluster,

the examiner respectfully disagree because the applicant's argument does not commensurate with the scope of the claim. Claims 6, 16, and 26 directly or indirectly recite wherein the master image comprises a physical location identifying software that operated to configure the selector receptor. However, claims 2, 12, and 22 do not recite the limitation of "a master receptor operating as a manager for a cluster" (emphasis added).

19. In response to applicant's arguments that Zimmer in view of Rothman does not explicitly show automatically installing an image on the network device, providing the use width option of installing a default image on the network device, and overriding the image by installing the default image on the network device, the examiner respectfully disagrees because the applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F. 2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as show in the above. Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include

knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Thursday and every other Friday (6:30-4:00).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Wallace can be reached on (571) 272-3440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi Tran  
Patent Examiner  
Art Unit 2151

August 12, 2007

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VALENCIA MARTIN-WALLACE  
PRIMARY EXAMINER